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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/609,422	07/01/2003	Myung-Ho Kyung	1349.1146	9462

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STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

BEATTY, ROBERT B

ART UNIT PAPER NUMBER

2852

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/609,422

Applicant(s)

KYUNG, MYUNG-HO

Examiner

Robert Beatty

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3 is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

1. Applicant arguments regarding the restriction requirement filed 10/21/2004 are convincing and therefore the claims have been rejoined. An office action follows regarding the patentability of claims 1-9.

2. The drawings are objected to because in Fig.3, box "600" should be labeled. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Ikeda et al.

Ikeda et al. teach an image forming apparatus comprising a photosensitive drum 1, a plurality of developing devices 11-14 wherein each developing device includes a toner container, developing roller 50 in an opening of the toner container, a regulation blade 23 in order to meter the toner on the developing roller, and a supply roller 22 to coat the developing roller with toner. A power source controller applies a voltage of -300V to the developing roller and a voltage of -400V to the supply roller thus a potential difference exists between the supply and developing rollers.

3. Claims 4-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Miyaji et al.

Miyaji et al. teach an image forming apparatus comprising a plurality of developing devices 31-34 for developing latent images on a photosensitive drum 11. The developing devices include a developing roller 131 and a supply roller 155. A spacer 161 is connected to the developing roller in order to space the developing roller a constant distance from the photosensitive drum (col.10, lines 37-55).

4. Claims 8-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Christy.

Christy teach an image forming apparatus comprising a photosensitive medium 10 and a plurality of developing devices 75,76 (see Fig.4). The first developer device has a supply roller 81 connected to a 1st power source, a developing roller 82 connected to a 3rd power source and the second developing device has a supply roller 78 connected to a 2nd power source. The 1st power source is greater (+850V) than the 2nd power source (+150V) and the 3rd power source is less (+450V) than the first power but greater than the 2nd power source.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeda et al. in view of Miyaji et al.

Ikeda et al. taught supra discloses most of what is claimed except a spacing ring connected to the developing roller. Miyaji et al. teach an image forming apparatus comprising a plurality of developing devices 31-34 for developing latent

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images on a photosensitive drum 11. The developing devices include a developing roller 131 and a supply roller 155. A spacer 161 is connected to the developing roller in order to space the developing roller a constant distance from the photosensitive drum (col.10, lines 37-55). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a spacer so as to maintain a constant distance between the photosensitive drum and the developing roller because the developing operation (toner application to the latent images) will always be constant thus ensuring uniform density images.

6. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christy in view of Miyaji.

Christy taught supra discloses most of what is claimed except a spacing ring connected to the developing roller. Miyaji et al. teach an image forming apparatus comprising a plurality of developing devices 31-34 for developing latent images on a photosensitive drum 11. The developing devices include a developing roller 131 and a supply roller 155. A spacer 161 is connected to the developing roller in order to space the developing roller a constant distance from the photosensitive drum (col.10, lines 37-55). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a spacer so as to maintain a constant distance between the photosensitive drum and the developing roller because the

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developing operation (toner application to the latent images) will always be constant thus ensuring uniform density images.

7. Claim 3 is allowable over the prior art of record.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Floyd, Jr., Suzuki, Ikegawa et al., and Suzuki (JP) all teach various power supplies to developing devices having developing and supply rollers.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Beatty whose telephone number is (571) 272-2130. The examiner can normally be reached on M-F from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley, can be reached on (571) 272-2136. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1782.

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A handwritten signature in black ink, appearing to read "Robert Beatty". The signature is written in a cursive style with a long horizontal stroke extending to the right.

Robert Beatty
Primary Examiner
Art Unit 2852

January 8, 2005